plasma torch 4 which constitutes the heating means in accordance with the invention and a nozzle 5 feeding surfacing grains which has an orifice 5a and constitutes the injector means according to the invention. Outside the enclosure 1 is a CCD video camera 6 behind the window 2 and pointing toward the preform 3, which has a longitudinal axis X. It provides a measurement of the diameter of the preform at the location at which it points in the form of a value transmitted by a link 7 to a device 8 controlling the surfacing process. The device 8 receives over a multiple link 9 other information on surfacing process conditions. Under the control of an internal program controlling the surfacing process, and for a constant flowrate of the grains, the device 8 provides on an output link 10 feeding a control device 11 a command which positions the nozzle 5 relative to the torch 4 and the preform 3 by moving the nozzle 5 along an axis parallel to the longitudinal axis X of the preform 3. The reference value is that for which the nozzle 5 and the torch 4 are in a common plane substantially perpendicular to the axis of the preform. The device 8 also supplies on a multiple output link 12 other command values determining other aspects of the control process.

A2

Page 7, please insert the following paragraph <u>before</u> paragraph 1:

A3

As shown in Figures 1 and 6, the torch 4 has a main axis Y in a plane substantially perpendicular to the longitudinal axis X of the preform 3. The nozzle 5 has a main axis Z at a fixed angle α to the main axis Y of the torch 4, in a plane substantially perpendicular to the longitudinal axis X of the preform 3.

Page 7, paragraphs 1 and 2:

All the components of the system shown in figure 1 are well known to the skilled person. Other components which are not shown in detail are equally well known. Thus means for supporting the preform 3 with rotary and translatory drive parallel to the longitudinal axis of the preform 3, and means for evaluating the angular position of the preform 3 and the longitudinal position of the carriage are shown in Figure 6 and described in European patent application EP 0 440 130 A1, for example. According to the invention, the carriage supporting the nozzle 5 and the torch 4 also includes internal means for supporting the nozzle 5 with translatory drive for positioning the nozzle 5 relative to the torch 4. In a manner that is well known in the art, all these means are used to move the preform 3 away from the torch 4 as the preform 3 grown larger. The camera 6 is pointed at successive locations of the preform 3 along a measurement path by means which could take the form of a second carriage, movement of which is coupled to that of the first carriage, also as in the prior art.

A4

The plasma surfacing is effected by alternating passes from right to left and from left to right during which the plasma torch 4 and the nozzle 5 are swept along the length of the preform 3 as shown in Figure 6. In accordance with the invention, the position of the nozzle 5 relative to the torch 4 is preferably changed at each change in the direction of translatory movement of the torch 4 relative to the preform 3 at the end of a pass. In figures 2 and 3, which are described later, the position of the nozzle 5 relative to the torch 4 in the prior art is typically fixed for every pass and therefore exactly the same regardless of the direction of translatory movement of the preform 3 relative to the torch 4. In figures 4 and 5, which are described later, the position of the nozzle 5 in accordance with the invention is different for each direction of translatory movement